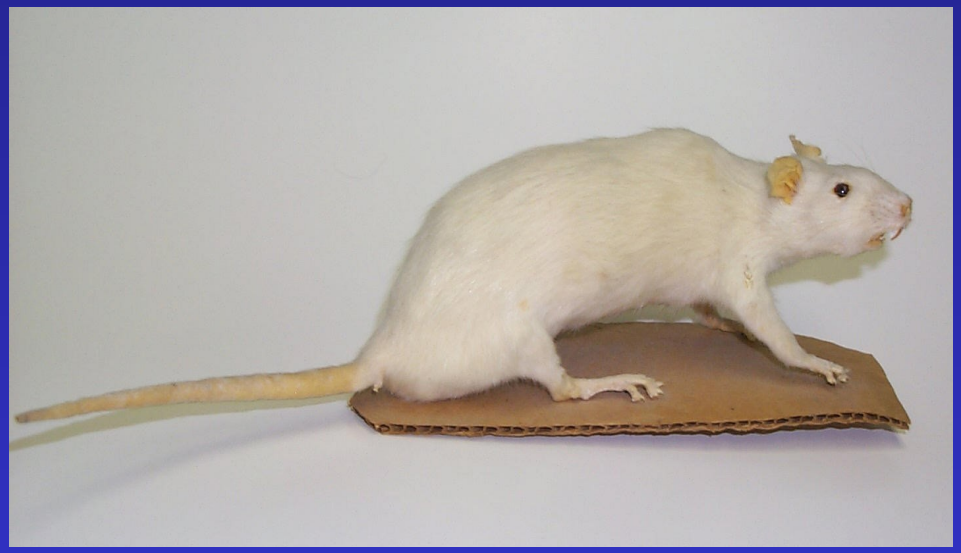
Rodent Biology and Control

Rodents: The Big Three

Roof Rat

Pointy ears, pointy snout, long tail



Norway Rat

unded ears, rounded snout, shorter t

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House Mouse

Smaller than roof rat and Norway rat

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Types of Rodent Damage

- Contamination or destruction of supplies
- Gnawing of insulation and wiring
- Disease transmission

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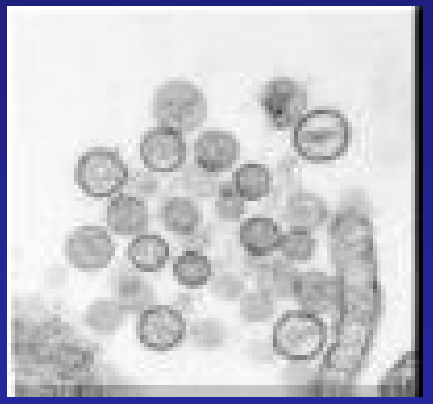
Rodent-borne Diseases

- Hantavirus
- Bubonic Plague
- Murine Typhus
- Spotted Fever
- Tularemia
- Food Borne Salmonellosis



Hantavirus

Hantavirus

- 4 strains of Bunyaviridae spread by the deer mouse, *Peromyscus maniculatus*
- Contracted by inhaling infected airborne feces, urine, saliva and rodent bites
- Symptoms include fever, muscle aches, nausea, cramps, vomiting, diarrhea, and dry cough
- 45% of cases are fatal

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Rodent Facts

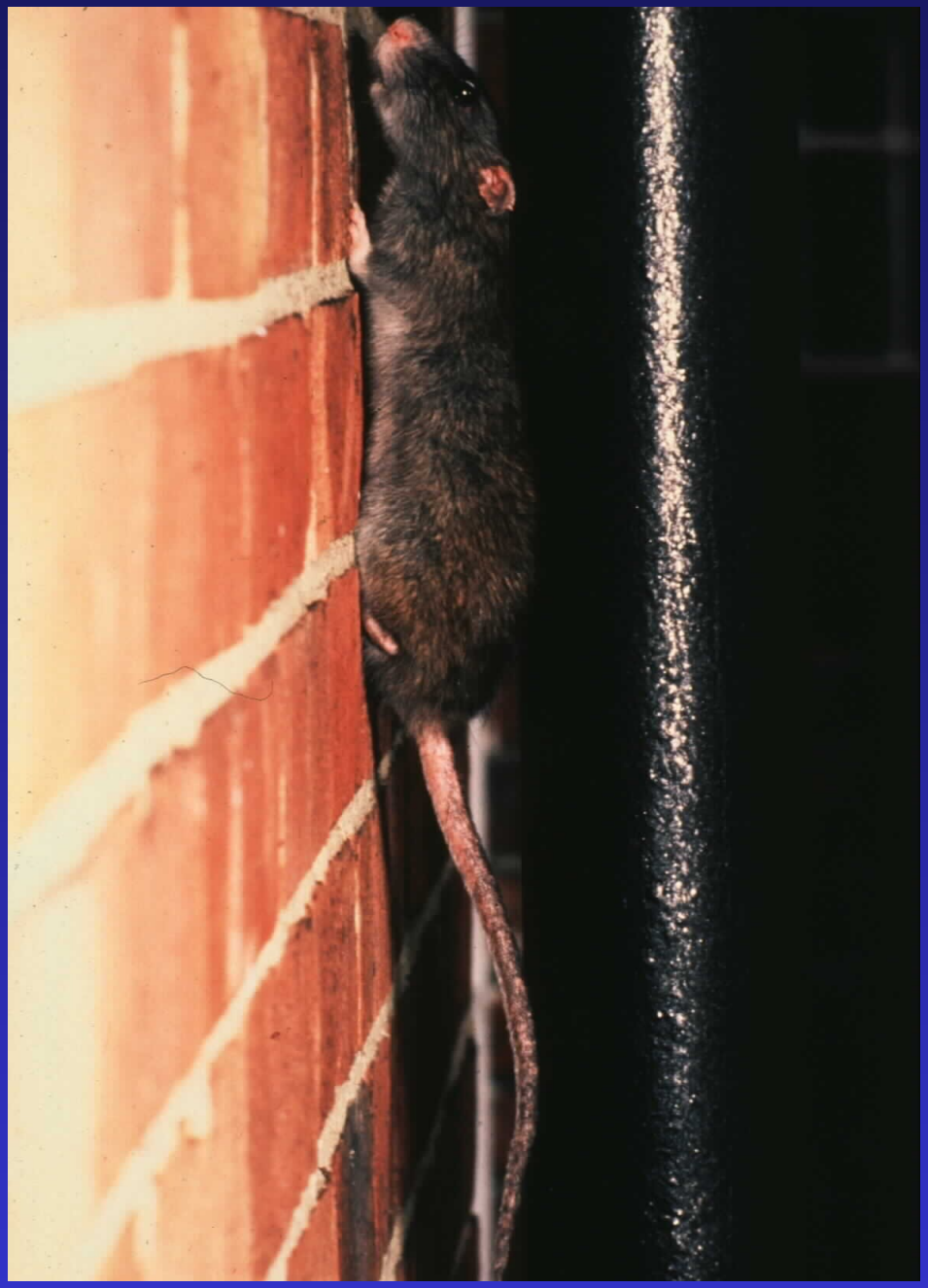
- **Rodents can:**
  - Jump or fall from a height of 8 ft. to the ground without injury
  - Jump 2 feet horizontally
  - Crawl through openings larger than ½ inch
  - Swim up to a mile in the open ocean

More Rodent Facts

- **Rodents can also:**
  - Climb the outside of vertical pipes and conduits if within 3 inches of a wall
  - Climb the inside of vertical pipes 1½ to 4 inches in diameter
  - Climb both horizontal and vertical wires

Rodents can climb wires

Rodents can climb vertical surfaces



Rodents can climb walls

Rodents can swim up to a mile in the open ocean

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Signs of Rodent Infestation

Droppings

Rubmarks

Gnawings

Tracks

Runways

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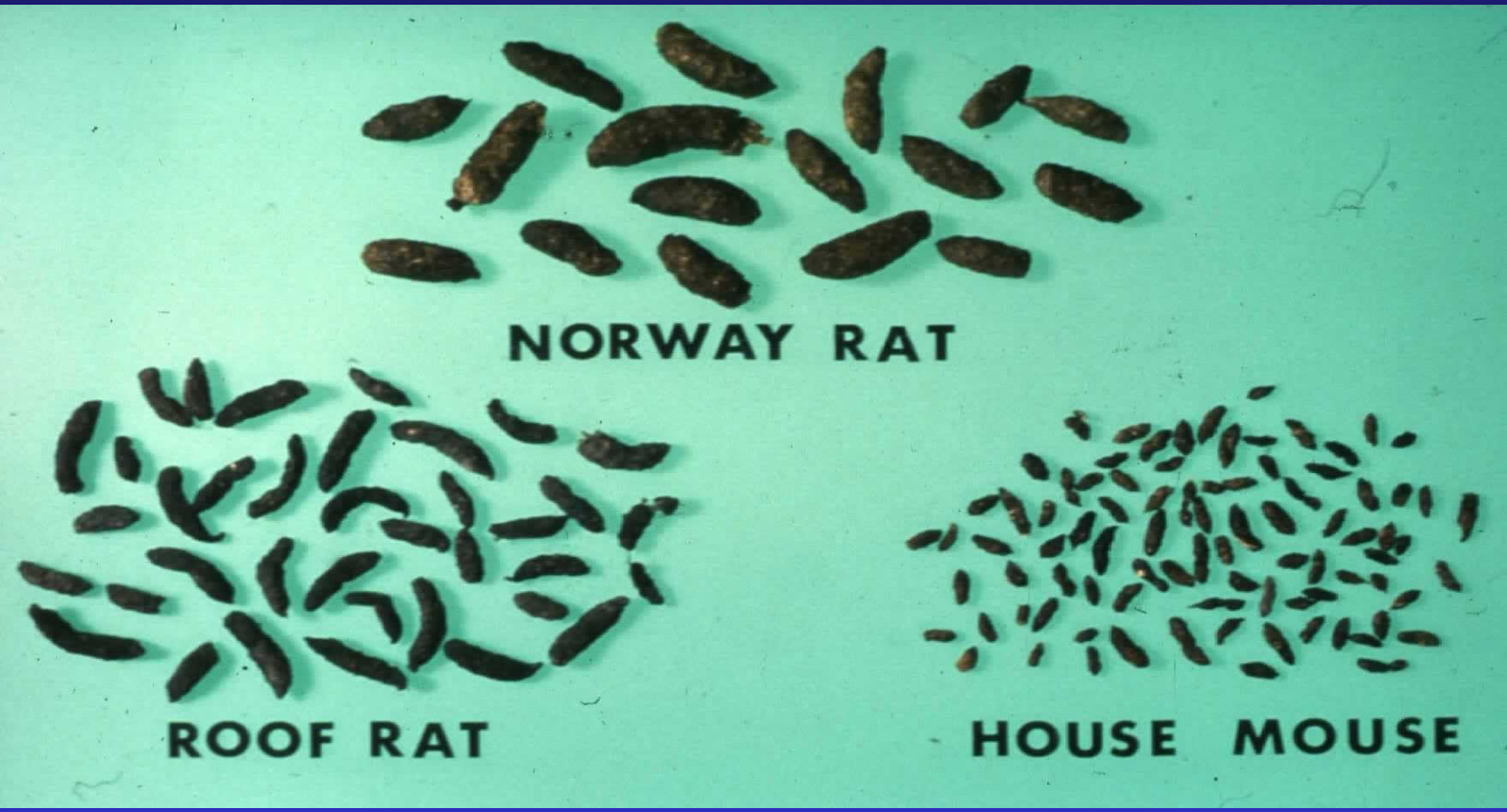
Rodent Droppings



Note size and shape

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Fresh droppings are wet and sh
Old droppings are gray and crun

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Rubmarks on Metal and Concrete

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Rodent Gnawing Behavior

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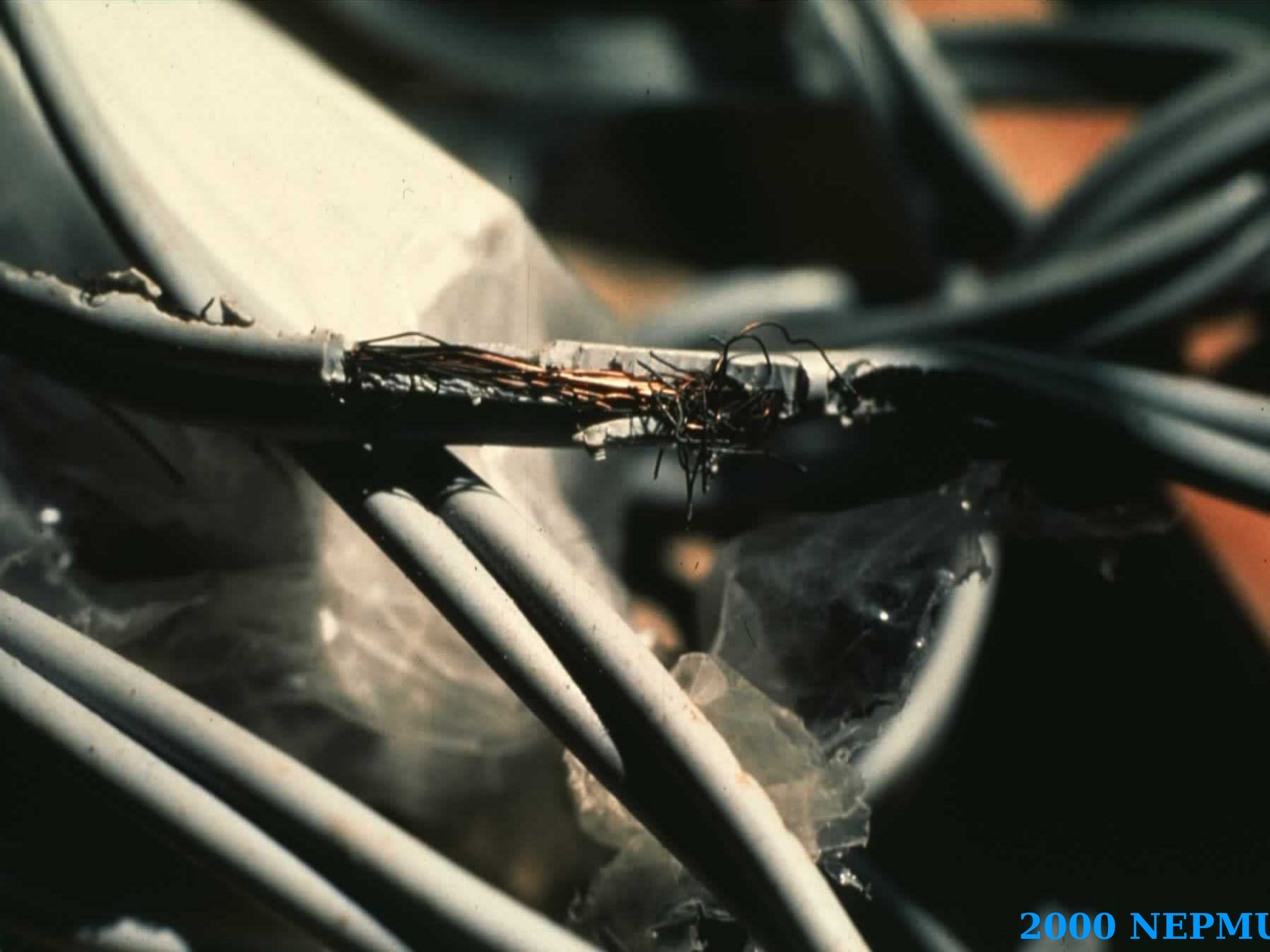
Rodent gnawing above hinge, entry point under door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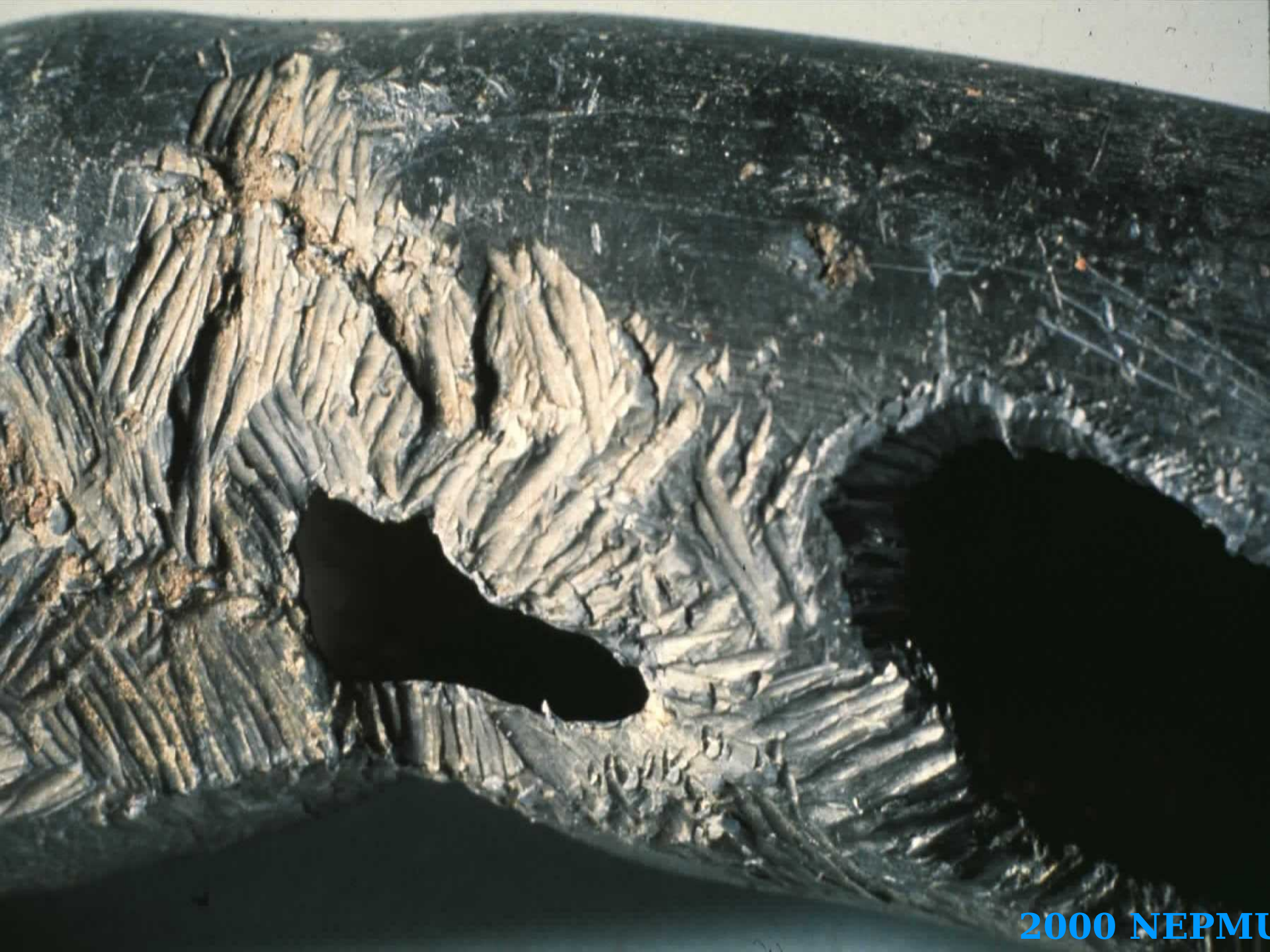
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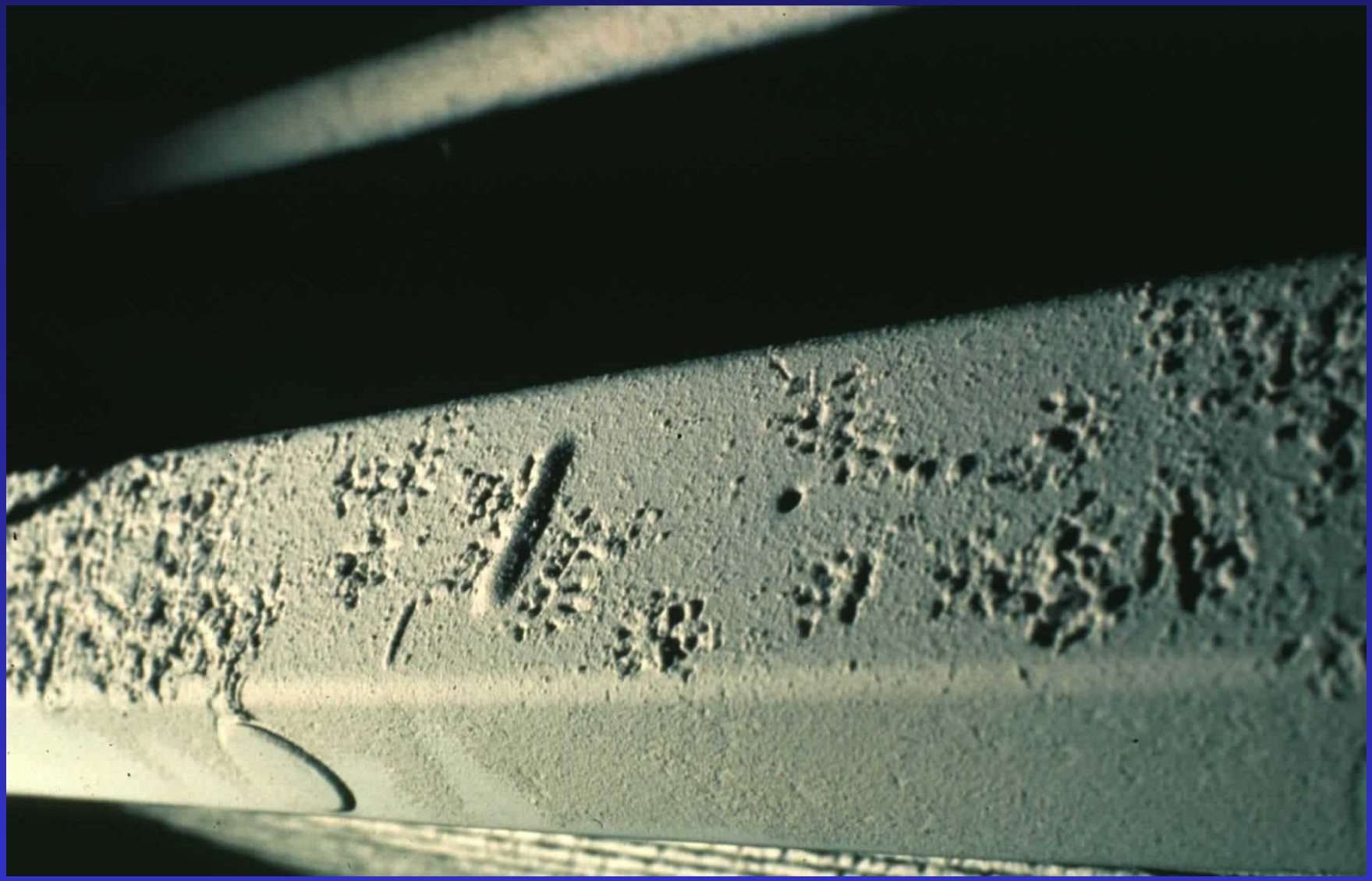
Rodent tracks



Rodent Runways

Rodents sometimes bite pe

Rodent Control

- Derat exemption certificate
- Ratguards
- Lighted gangways
- Properly placed and covered dumpsters
- Wooden snap traps

Deratting Exemption Certificate (BUMEDINST 6250.14)

- Required by SECNAVINST 6210.2A and Article 22-37 of the Manual of the Medical Department
- Also required by the CDC, WHO, and most foreign countries
- Certification lasts 6 months. The agency that issued cert. can extend 1 month.

Ratguards

- Required by COMNAVSURFLANT 6000.1H on **all** mooring and service lines in **any** port
- Ratguards must conform to MIL-G-2767C:
  - 36” in diameter
  - 18 gauge sheet metal
  - Cone-shaped (30° angle at the perimeter)
- Place at least 6 ft. from the pier and 2 ft. from the ship
- Point of cone faces the ship

Improperly designed ratg

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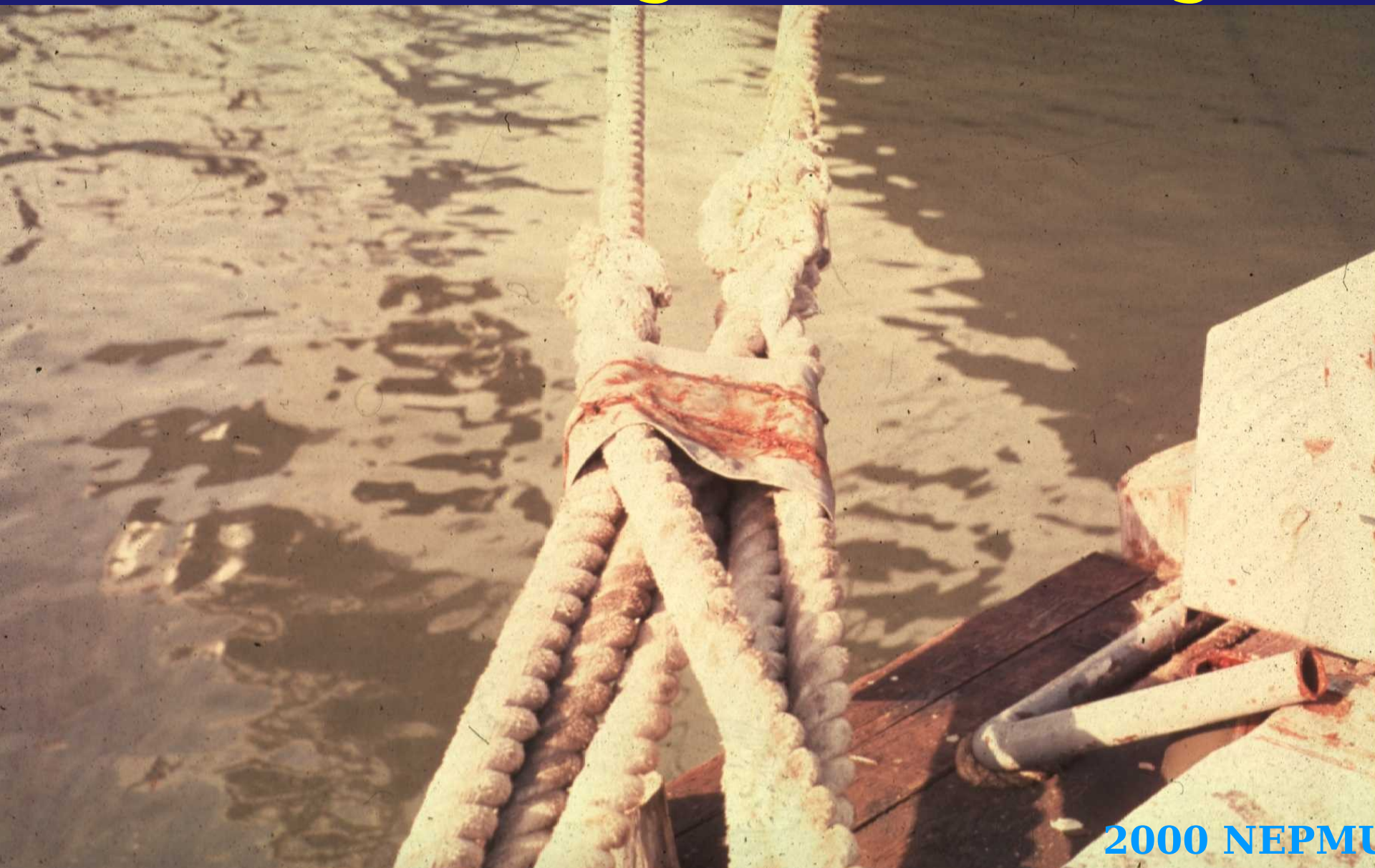
Improperly placed ratguard

Cloth “ratguard” with greas



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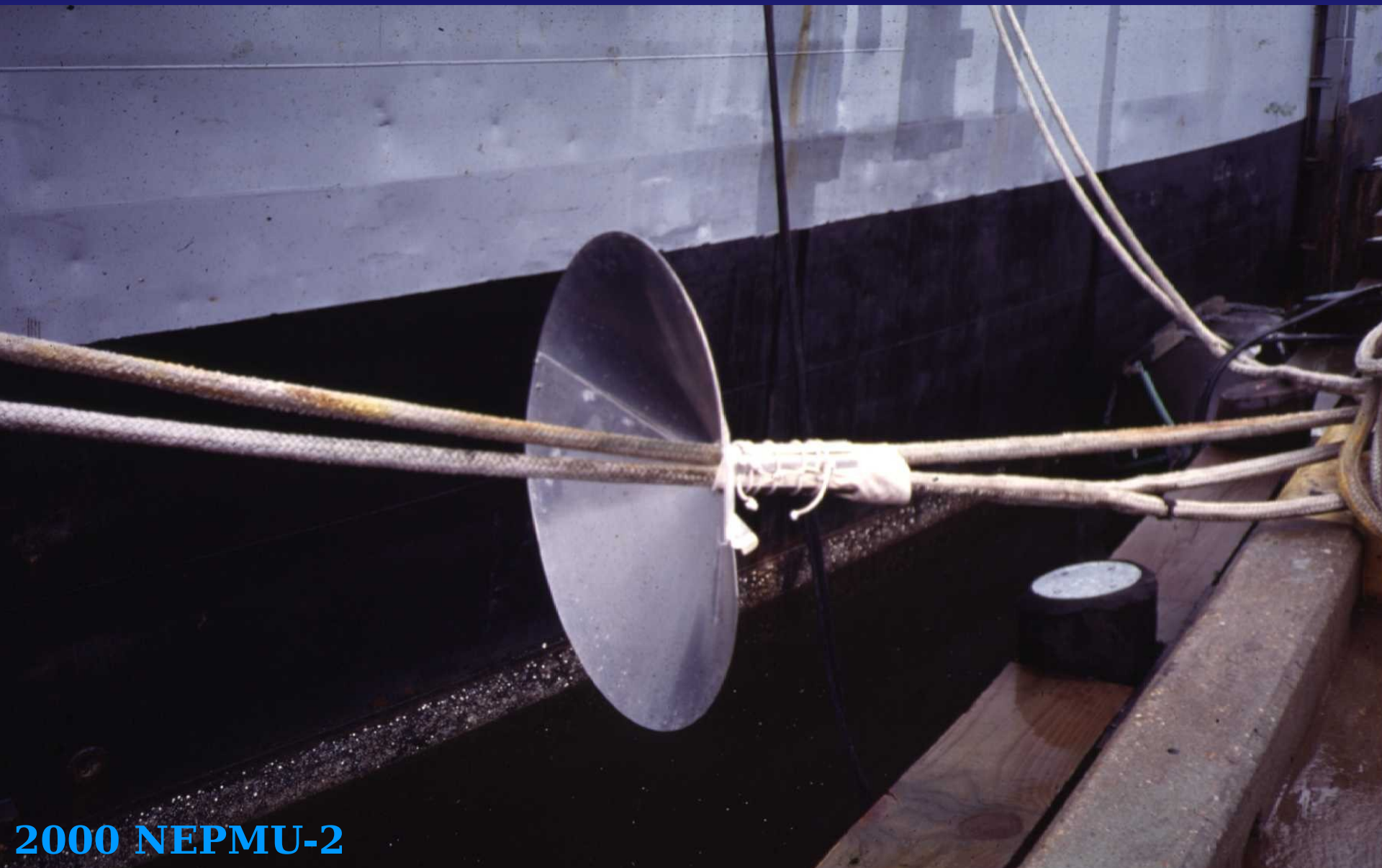
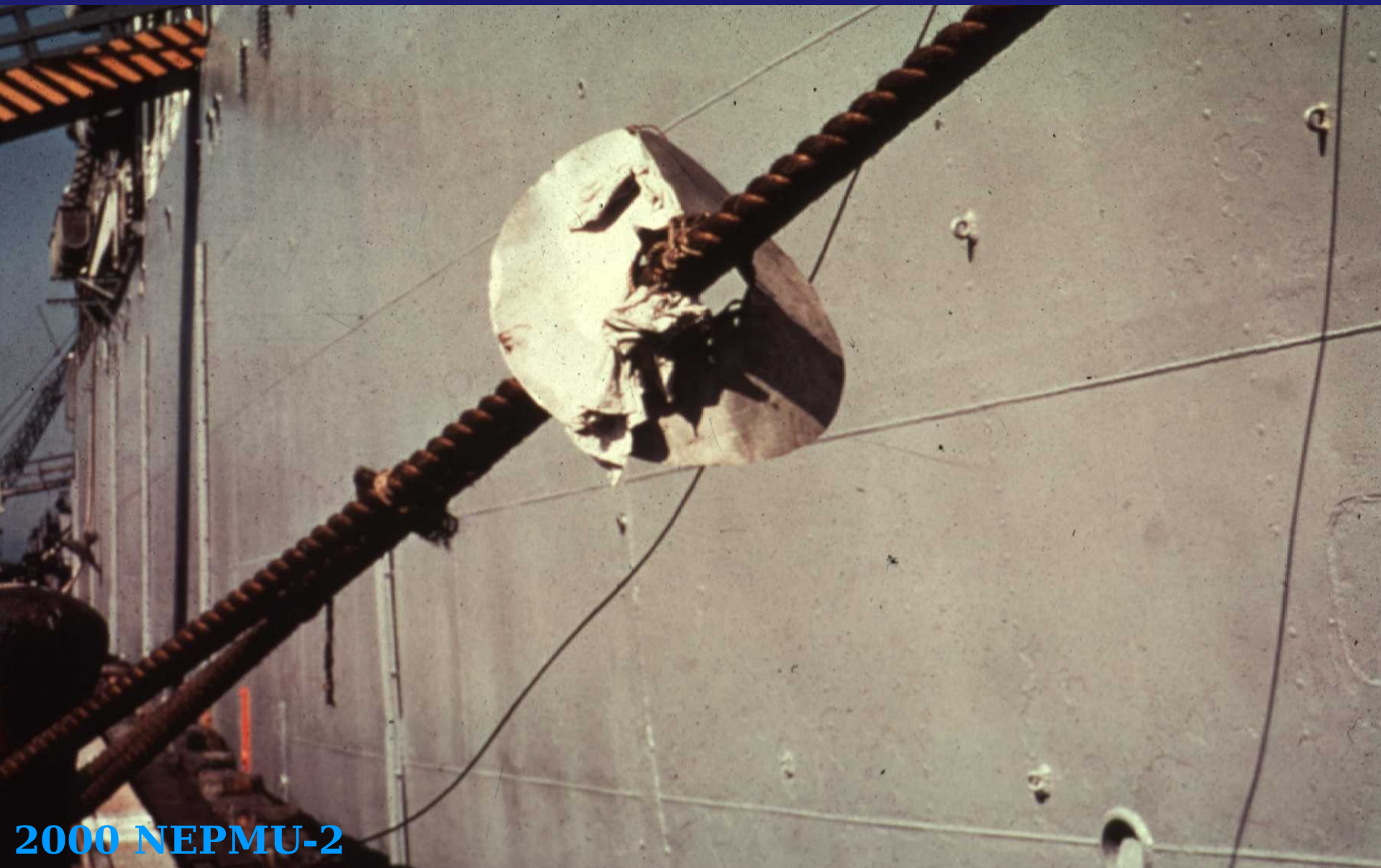
Backward ratguard: keep rats on



Ratguard beyond repair



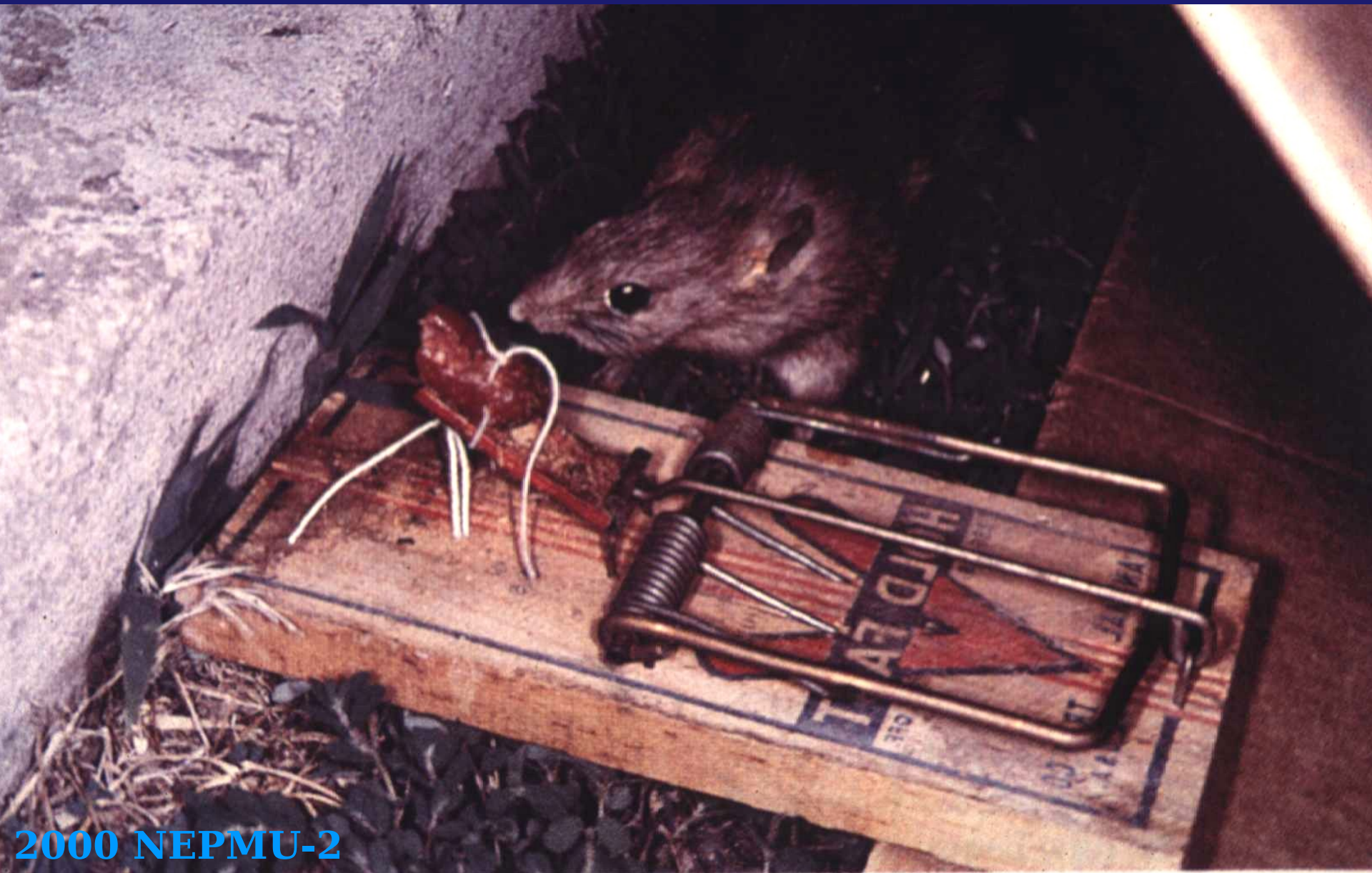
Rodent Control

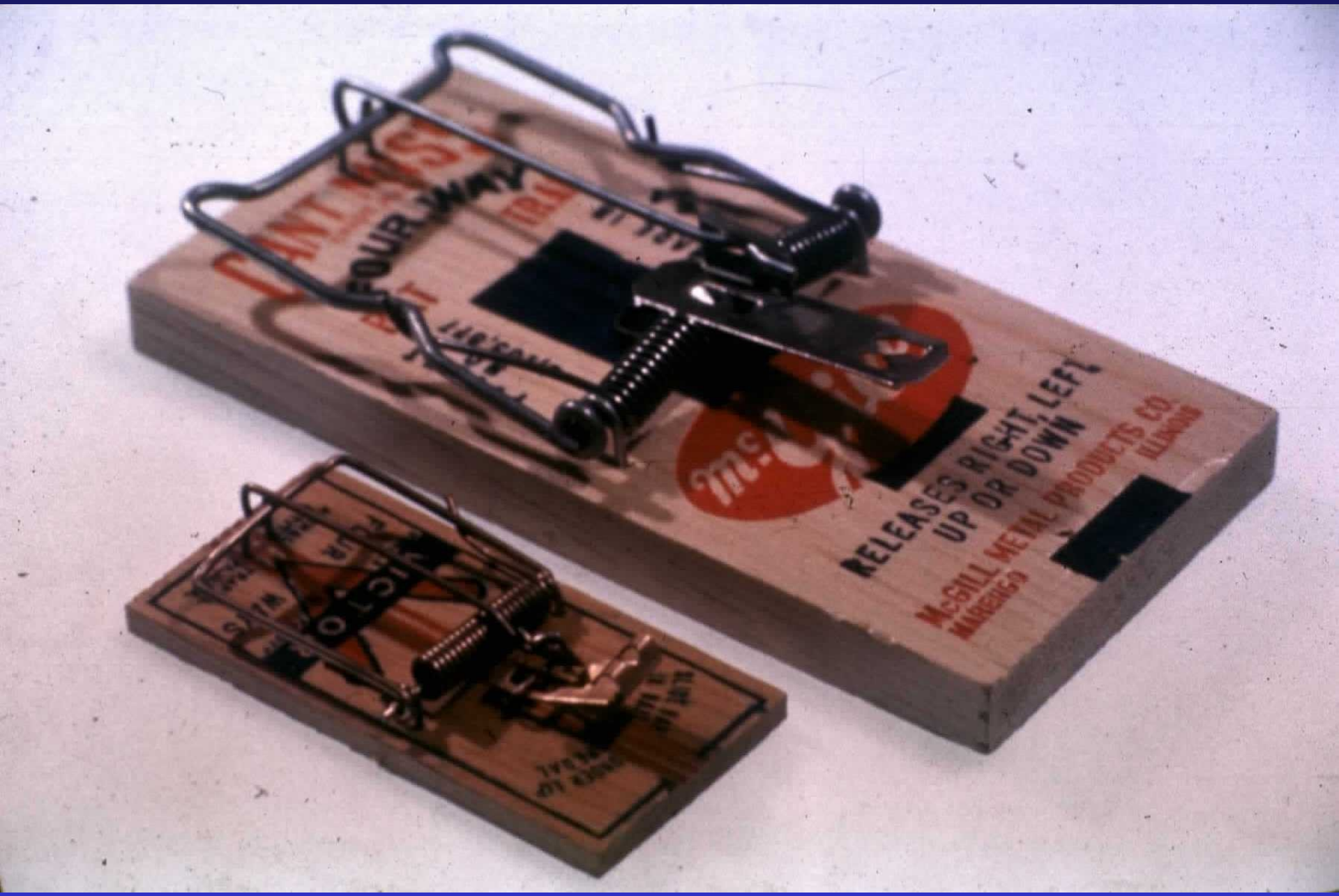
- Sanitation
- Trapping
  - Bait selection and pre-baiting
  - Expanded trigger
  - Trap placement
- Glue Boards
- Toxic Baits (not recommended)

Rodent Control: Sanitation

Rodent Control: Proper garbage dis

Rodent Control: Trapping




RELEASES RIGHT, LEFT
UP OR DOWN
McGILL METAL PRODUCTS CO

Pre-baiting traps

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Trap placement

Traps should be touching wall

Toxic Baits are not recommend

If toxic baits must be used, label prope

The Payoff